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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/891,780	06/26/2001	Andreas Bulan	Mo-6268/LeA 34,400	1808

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EXAMINER

BOS, STEVEN J

ART UNIT PAPER NUMBER

1754

DATE MAILED: 05/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/891,780

Applicant(s)

BULAN ET AL.

Examiner

Steven Bos

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 April 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date. _____  | 6) <input type="checkbox"/> Other: _____                                    |

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A request for continued examination under 37 CFR 1.114 was filed in this application after a decision by the Board of Patent Appeals and Interferences, but before the filing of a Notice of Appeal to the Court of Appeals for the Federal Circuit or the commencement of a civil action. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on April 25, 2005 has been entered.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith '241 in view of the admitted prior art on instant pg. 3, lines 4-7.

Smith teaches the instantly claimed process wherein bottoms are evaporated at 50-150°C and then treated with calcium hydroxide or calcium oxide (see col. 5-8). The instant admitted prior art states that commercial arsenic containing hydrogen fluoride has water, sulfuric acid and sulfur dioxide contents which overlap those instantly claimed and thus would have been obvious.

The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have selected the overlapping

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portion of the range disclosed by the reference because overlapping ranges have been held to be a prima facie case of obviousness, *In re Malagari*, 182 USPQ 549.

Applicant's arguments filed June 7, 2004 have been fully considered but they are not persuasive.

Applicant argues that Smith teaches a process for converting hexafluoroarsenic acid or salts thereof in an aqueous solution to arsenic acid or salts thereof, by carrying out a difficult hydrolysis of hexafluoroarsenic acid or salts thereof in the presence of certain catalysts at temperatures of 50 to 150°C in the concentrating and hydrolyzing steps in contrast to the instant claims which relate to a process for removing arsenic compounds from the distillation bottoms obtained in the distillation of arsenic-containing hydrogen fluoride by concentrating the distillation bottom at a low temperature of 40 to 60°C ... without the difficult hydrolysis of hexafluoroarsenic acid or salt thereof.

However, firstly, the instant claims do not exclude the taught hydrolysis. Secondly, appellant admits and Smith clearly teaches that the bottoms are concentrated at 50-150°C which not only overlaps the instantly claimed temperature range of 40-60°C, it also clearly anticipates the instantly claimed temperature since the taught 50°C falls within the instantly claimed temperature range.

Applicant argues that Smith lacks a teaching of a process for removing arsenic compounds from distillation bottoms ... reacting the residue with calcium hydroxide, calcium oxide, or a mixture thereof.

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However Smith suggests the instantly claimed positive process steps as explained above and below which would result in removal of arsenic compounds from distillation bottoms containing same. Smith teaches reacting calcium oxide or hydroxide with the resulting mixture or residue after the taught step of concentrating the distillation bottoms at col. 8, lines 18-50.

Applicant again insists that Smith teaches application of a temperature range of 50-150°C to a reaction mixture which is hydrolysable to arsenic acid or salts thereof, in contrast to the instant temperature range of 40 to 60°C which is not applied to a hydrolysable reaction mixture as described by Smith.

Again, however, it is noted that the instant claims do not exclude the taught hydrolysable reaction mixture and in fact even include same since the reaction or aqueous mixture, ie. distillation bottoms, is taught to comprise sulfuric acid, hydrofluoric acid and hexafluoroarsenic acid (see col. 2, lines 54-59, and col. 5, lines 17-26) which is exactly as claimed in instant claim 4 which recites that the distillation bottoms comprise sulfuric acid, hydrofluoric acid and hexafluoroarsenic acid.

Applicant states that cited col. 5-8 and the Examples of Smith describe hydrolysis of hexafluoroarsenic acid.

This may be true but also taught in Smith is the instantly claimed concentration of the distillation bottoms, ie. aqueous mixture or starting aqueous mixture. See col. 6, lines 8-13. It is also noted that instant claim 2 recites that the bottoms contain less than 20% by weight water after concentration which means that the bottoms would contain more than 20% by weight water before concentration and thus would be the same as

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the taught hydrolysable mixture of Smith which also contains from about 2 to about 20% by weight water (see col. 5, lines 23-24).

Thus the taught evaporation to concentrate the starting aqueous mixture at about 50°C anticipates step a of claim1 since the starting aqueous mixture has the same components as the instantly claimed distillation bottoms as explained above.

Applicant argues that even where the prior art discloses a range, which overlaps, but no specific examples falling within the range are disclosed, anticipation must be based on the prior art disclosure of the claimed invention with sufficient specificity and that the examiner must provide reasons for anticipation and obviousness of the narrow range and goes on to refer to the case law of Ex parte Lee, 31 USPQ2d 1105.

With regard to the case law of Ex parte Lee, it is noted that it states in part in section 1 that "disclosure in prior art of any value of claimed range is anticipation of that range." It is noted that the prior art, Smith, teaches a temperature of 50°C (see col. 6, line 12) which is exactly in the middle of the instantly claimed temperature range. Therefore the examiner does not have to provide reasons for anticipation and obviousness of the narrow range.

This is an RCE of applicant's earlier Application No. 09/891780. All claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application. Accordingly, **THIS ACTION IS MADE FINAL**

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even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

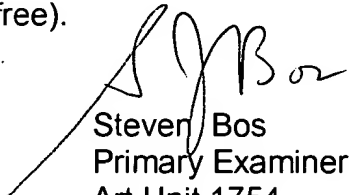
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven Bos whose telephone number is 571-272-1350. The examiner can normally be reached on M-F, 8AM-6PM but is on increased flexitime sch.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on 571-272-1358. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Steven Bos  
Primary Examiner  
Art Unit 1754

sjb